

702-B-178 POLYCHLOROPENE JOINT MEMBRANE

(Adopted 08-20-08)

The Standard Specifications are revised as follows:

SECTION 702, AFTER LINE 43, INSERT AS FOLLOWS:

<i>High Density Plastic Bearing Strips</i>	906.08
Permanent Metal Forms	910.03
<i>Polychloroprene Joint Membrane and Adhesive</i>	906.02(a)5
Portland Cement.....	901.01(b)
Steel Drain Pipe.....	910.07
Utility Asphalt, UA-1	902.01(d)
Water	913.01

SECTION 702, AFTER LINE 972, INSERT AS FOLLOWS:

(e) Polychloropene Joint Membrane

Polychloropene joint membrane used for semi-integral end bents shall be secured to the concrete with an adhesive. The polychloropene joint membrane shall be centered vertically on the joint. Any field joint in the polychloropene membrane shall be lapped a minimum of 12 in. (100 mm).

SECTION 702 AFTER LINE 1500, INSERT AS FOLLOWS:

The cost of furnishing and installing polychloroprene joint membrane shall be included in the cost of concrete, A, substructure.

The cost of high density plastic bearing strips shall be included in the cost of concrete, A, substructure.

SECTION 906 AFTER LINE 100, INSERT AS FOLLOWS:

5. Polychloropene Joint Membrane and Adhesive

Polychloropene joint membrane shall be general purpose, heavy duty polychloropene sheeting with nylon fabric reinforcement. The sheeting shall be in accordance with the following:

<i>Property</i>	<i>Test Method</i>	<i>Requirement</i>
<i>Thickness</i>	<i>ASTM D 751</i>	<i>0.094 in. \pm 0.01 in. (2.39 mm \pm 0.25 mm)</i>
<i>Breaking Strength, Grab Test</i>	<i>ASTM D 751</i>	<i>700 lbf x 700 lbf (3114 N x 3114 N) (Longitudinal x transverse, minimum)</i>
<i>Adhesive Strip, 1 in. x 2 in. (25 mm x 50 mm)</i>	<i>ASTM D 751</i>	<i>9 lbf (40 N) (minimum)</i>
<i>Burst Strength</i>	<i>ASTM D 751</i>	<i>1400 psi (9.65 MPa) (minimum)</i>
<i>Heat Aging, 70 h, 212°F (100°C)</i>	<i>ASTM D 2136</i>	<i>180° bend with no cracking of coating</i>

<i>Low Temp. Bend Test, 1h, -40°F (-4.4°C)</i>	<i>ASTM D 751</i>	<i>Bend around a 1/4 in. (6 mm) mandrel with no cracking of coating</i>
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Polychloroprene joint membrane shall be covered by a Type B certification in accordance with 916.

The adhesive used to attach the polychloroprene joint membrane to concrete shall be a black styrene-butadiene rubber base material compatible with both concrete and polychloroprene. The adhesive shall be in accordance with the following:

<i>Property</i>	<i>Test Method</i>	<i>Minimum</i>	<i>Maximum</i>
<i>Viscosity, cps</i>	<i>ASTM D 2196, RVF #6 sp @20 rpm</i>	<i>7500</i>	<i>18000</i>
<i>Solids, %</i>	<i>ASTM D 1259</i>	<i>28</i>	<i>35</i>
<i>Weight per gal., lb (Mass per L, kg)</i>	<i>ASTM D 1875</i>	<i>6.6 (0.79)</i>	<i>7.0 (0.84)</i>

The adhesive shall be covered by a Type C certification in accordance with 916.

SECTION 906 AFTER LINE 299, INSERT AS FOLLOWS:

906.08 High Density Bearing Strip

The strip shall be nontoxic multipolymer plastic in accordance with the following requirements:

<i>Property</i>	<i>Test Method</i>	<i>Requirement</i>
<i>Compressive Strength</i>	<i>ASTM D 695</i>	<i>8000 to 9000 psi (55.2 to 62.1 MPa)</i>
<i>Coefficient of Linear Expansion</i>	<i>ASTM D 696</i>	<i>3.0×10^{-5} in./in./°C to 5.0×10^{-5} in./in./°C (7.62×10^{-4} mm/mm/°C to 1.27×10^{-3} mm/mm/°C)</i>

The high density bearing strip shall be covered by a type B certification in accordance with 916.